UNIVERSITY of WISCONSIN
LA CROSSE

REQUEST FOR
ARCHITECTURAL & ENGINEERING SERVICES

Instructional Science Facility Phase I
2013-2015

December 2013

Project No. 13B3H

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Project Background and Purpose

This project will construct new space to accommodate the academic programs that deliver the curriculum in the physical and life sciences at the University of Wisconsin-La Crosse. The increased demand for access to the allied health professions programs at UW-L has resulted in greatly increased demand for basic courses in the physical and life sciences. In addition, instruction in the sciences is also required by other degree programs at the university. As such, the large demand for courses in the basic sciences results in greatly increased pressure on the existing laboratory facilities. This intense use of the facilities, coupled with the fact that Cowley Hall, the university's science building, was constructed over forty-five years ago, is making it increasingly problematic to deliver instruction.

Also, an increased emphasis on undergraduate and faculty research has put additional strains on the laboratory facilities. These spaces, and the aged building infrastructure that supports them, are not in adequate condition to accommodate the level or the intensity of use that is required of them.

New space is needed for instructional laboratories, research activities, faculty offices, classrooms, collaborative learning areas, and all other spaces required to deliver general science instruction. The university conducted a programming and pre-design effort (DFD #09J2H) for this project. The final study document is titled "Cowley Hall Science Building Program Statement & Pre-Design Study", and design of the new science facility will be based on this document and the space program therein. The study document can be viewed in its entirety at http://www.uwlax.edu/sciencefacility/. Construction of Phase I of the project was enumerated in the 2013-15 biennium.

Project Description

This project will design and construct a complete replacement of Cowley Hall, the UW-La Crosse science instruction facility. The project has been divided into two construction phases, with the final facility (Phase I and Phase II projects) consisting of a connected building that will include teaching and research labs, classrooms, offices, collaborative learning spaces and gathering areas, and all other spaces required to accommodate all of the instructional programs in the physical and life sciences. This includes teaching and departmental space for the departments of Biology, Chemistry, Geography/Earth Science, Mathematics, Microbiology, Physics, River Studies and the offices of the Dean of the College of Science and Health.

Phase I will design and construct a new 108,000+/- ASF/180,000+/- GSF building sited on an existing surface parking lot located immediately north of the existing campus science building (Cowley Hall). This new facility will consist primarily of the spaces in a science facility that typically requires a higher level of infrastructure than a standard academic building. These spaces include the instructional and research labs required to accommodate delivery of the curriculum in the physical and life sciences, along with miscellaneous building support spaces. Details of the space program for Phase I are found in the pre-planning report referenced earlier in this request document.

Phase II of the project plans to demolish the existing Cowley Hall and construct a 93,000+/- ASF/148,000+/- GSF structure that will satisfy the balance of the program

needs. These spaces would include, but not necessarily be limited to classrooms, collaborative learning spaces, office, conference and all other ancillary departmental and building support spaces. Details of the space program for Phase II are also found in the pre-planning report. Phase II will be brought forward for enumeration in a future biennium.

Construction of the new student union is scheduled to be completed during the summer of 2016. Upon completion of Phase I of the new science building, the campus will relocate all teaching and research labs and various support spaces to the new building. The existing Cowley Hall will remain operational for classrooms, lecture halls and faculty offices until Phase II is approved. Most of the remaining occupants will move to the Cartwright Center (the old student union) which will act as surge space during the construction of Phase II.

Scope of Services

The A/E consultant team will be selected, based on qualifications, to provide design and construction phase services for this project. The intent of the university is to engage A/E services as part of Phase I of the project to complete full design and production of construction documents for Phase I construction, as well as the concept design for Phase II. The design documents will be guided by the information contained in the pre-design study. In addition to services required in the *DFD Policy and Procedure Manual for Architects/Engineers and Consultants*, the A/E consultant team shall provide the following services:

- Conduct an estimated 4 meetings to verify the program with all intended users, stakeholders and campus administrators and resolve which, if any, of the "add-in" program areas listed in the pre-design study will be designed and built.
- Conduct all necessary detailed surveys and studies including but not limited to soils, storm water, structural, electrical, mechanical and telecommunications systems to enable selections of final option in each case. While an estimate of utility demand (steam, chilled water, potable water, electricity, IT) for the new science facility was estimated during the pre-design study, and preliminary design intent for connection of the building to the various utilities was developed, the consultant for this project will be required to confirm the estimated utility demands and verify those intended utility connection solutions.
- The consultant will review the feasibility of supplemental geothermal heating and cooling for this project. This includes further refinement of the geothermal analysis completed in the Chilled Water Plant Study, Project 12H2C, addressing the specifics of this project.
- Provide a high performance building following the guidelines outlined by the U.S. Green Building Council in order to achieve Leadership in Energy and Environmental Design (LEED®) Silver certification or higher. The DFD Sustainability Requirements should also be followed closely throughout the project.
- Development of a concept report including functional analysis of the building, schematic plans and sections, narrative descriptions of proposed building systems; utility service locations, sizes, demolition (if needed) and identification of necessary permits; estimated total project budget and schedule for the complete work. Upon authorization, forward to Preliminary Design and beyond.

- Provide interior design services for all fixed finishes in the building and provide guidance to university staff regarding finishes, upholsteries, etc. of all moveable furnishings that will be specified and purchased by the university.
- Third party independent commissioning will be contracted for separately by DFD.
- Upon completion of construction documents for Phase I following bidding, DFD will authorize the AE team to begin development of the concept report for Phase II.

Project Schedule – Phase I

A/E Selection	February 2014
Begin Design	June 2014
Concept Design (Phase I)	October 2014
Preliminary Design Submittal	February 2015
BOR/SBC Authority to Construct	March 2015
Final Design Submittal	September 2015
Project Bidding	January 2016
Begin Concept Design (Phase II)	February 2016
Begin Construction	April 2016
Substantial Completion	April 2018

Project Budget- Phase I

Construction	63,894,000
Contingency (8%)	5,117,000
A/E Fee	4,656,000
Pre-Design Fee (N.I.C.)	316,000
Other Fees	856,000
LEED Certification	150,000
DFD Fee	2,763,000
Moveable Equipment	3,198,000
Special Equipment	1,200,000
Phase I Total	**82,150,000**

Estimated Project Budget- Phase II

Construction	40,865,000
Contingency (10%)	4,087,000
A/E Fee	2,975,000
Concept Report Fee	450,000
Other Fees	773,000
DFD Fee	1,798,000
Moveable & Special Equipment	3,052,000
Estimated Phase II Total	**54,000,000**

General Requirements

Sustainability

It is a goal of this project to provide a high performance building by closely following DFD Sustainability Requirements and to seek LEED® Silver certification. It is a goal of the University to emphasize energy efficiency, future maintainability and flexibility, and long term durability.

Accessibility

A key component of the UW System mission is to provide services and programs for all potential users. Design of this facility should not only meet but exceed the requirements of ADA where possible. The design of the new facility should embrace the concept of "universal design," or accessible or inclusive design, as a standard. The designers must incorporate ergonomics, cultural, gender and environmental concerns into their design processes. The underlying goal is to design facilities, products or services for the fullest range of human function, taking into account the physical, sensory, cognitive, and language needs or abilities of the broadest spectrum of customers during the initial design phase.

Utilities

Electrical service to the new facility will be provided by the campus-owned distribution system. All Agency project #13A2S will be implemented in the 2013-2015 biennium to extend buried electrical service to the site. The science building project will be responsible for connecting to that electrical distribution line in a manhole, and extending the electrical service into the building.

All Agency project #13A2S referenced above will also extend buried IT conduit from Wing Communication Center and Murphy library to the project site. The science building project will be responsible for extending fiber optic lines from Wing and Murphy, through the conduit system and into the new building.

The campus has completed a study of the campus central chilled water system, and per the recommendations of that report, the university will be constructing an additional chilled water plant in the 2013-2015 biennium that will add the capacity needed to provide service to the new science facility. The chilled water project #13B3K will also extend a distribution line onto the science building site. It will be the responsibility of the science building project to connect to that line and extend chilled water into the building.

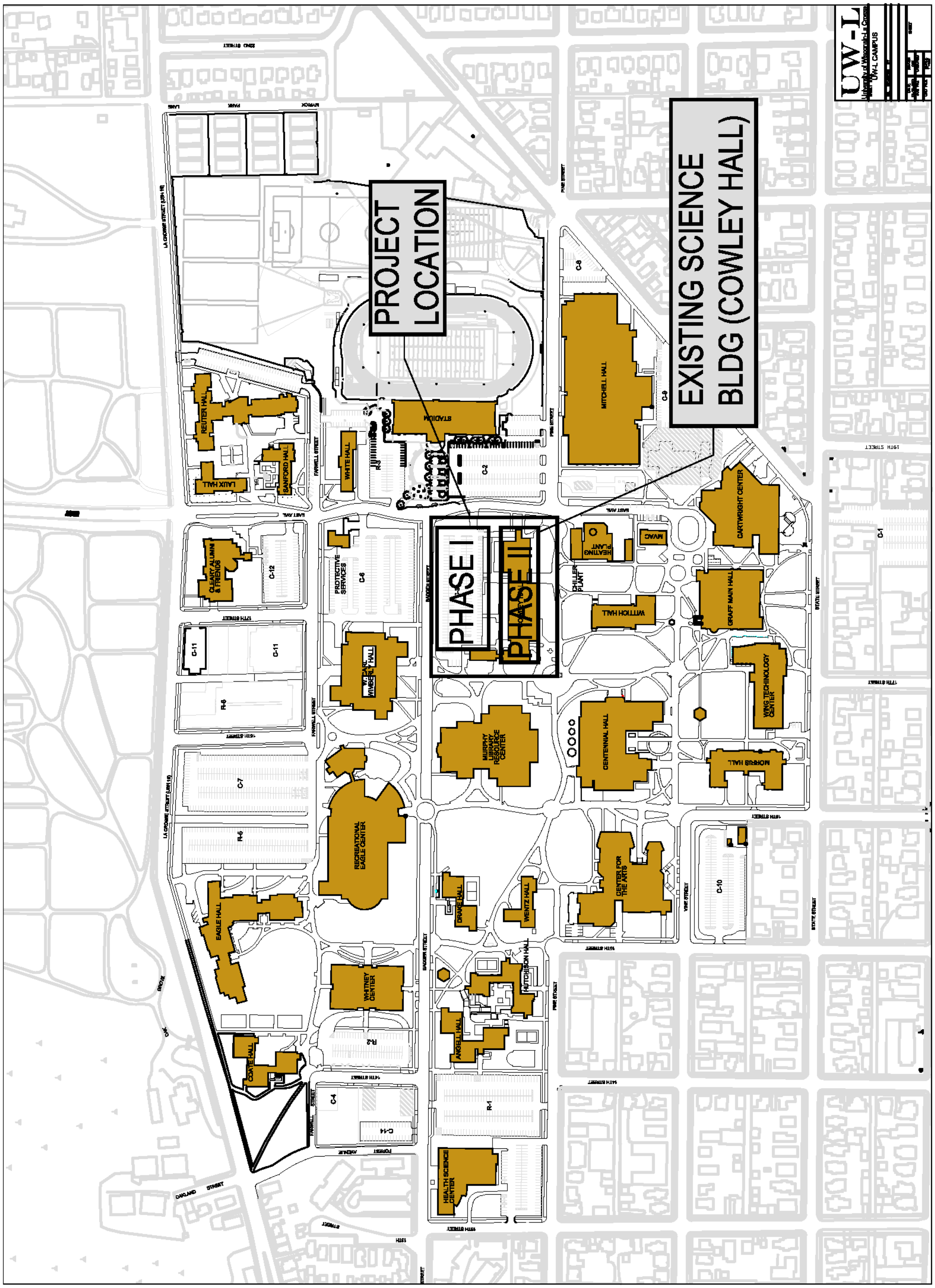
The existing campus steam plant has the capacity to provide steam to the new facility. It will be the responsibility of the science building project to connect to existing steam and condensates located to the north of the site in a steam vault and extend it into the new building.

Building Site

See Program Statement and Pre-design Study (DFD # 09J2H)

http://www.uwlax.edu/sciencefacility/

Site Map


PROJECT LOCATION
EXISTING SCIENCE BLDG (COWLEY HALL)
PHASE I
PHASE II
UW-L